



# citizens' bulletin

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photo courtesy of National Wildlife Federation

## save our wetlands



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# National Wildlife Week

March 14 to 20 is National Wildlife Week, a nationwide observance designed to focus attention on our dwindling natural resources. Sponsored by the National Wildlife Federation, the week is observed by the distribution of educational materials, slide and film presentations, local exhibits and lectures and radio and television shows.

The theme for this year's National Wildlife Week is "Save our Wetlands." Wetlands are a priceless and irreplaceable part of our national heritage, according to Thomas L. Kimball, Executive Vice President of the National Wildlife Federation. "They are important not only to wildlife but to man. They support a vast range of plants and wildlife; they aid in the natural purification of our water supplies; they provide unique scenic and recreational areas and a good part of our food supply." It is estimated that two-thirds of the commercially valuable Atlantic finfish and shellfish spend part of their life cycle in tidal wetlands.

Wetlands are also the most rapidly vanishing part of our natural ecosystem, often regarded as waste space to be filled or built upon.

There are about 20 varieties of wetlands, including marshes, swamps, river deltas, estuaries, prairie potholes, lakes, streams, river bottomlands and farm ponds. In 1956 the U. S. Fish and Wildlife Service estimated that at least 45 million acres, or 35% of the estimated original 127 million acres of wetlands in the Continental United States, had been drained, filled, or otherwise destroyed. According to Kimball, "it seems safe to assume that after twenty more years of intensive development, particularly in coastal areas, more than half the original 127 million acres of wetland area are lost forever."

In Connecticut there are 815,500 acres of wetlands, consisting of 800,000 acres of inland wetland and 15,500 acres of tidal wetland. The tidal wetlands in Connecticut are our fastest vanishing natural resources, with little more than half of the original tidal wetlands in the state left today.

Legislation was enacted in Connecticut in 1969 and 1972 which, according to Edward J. Daly, DEP's Director of Water Resources, "for the most part effectively stopped the indiscriminate filling of wetlands."

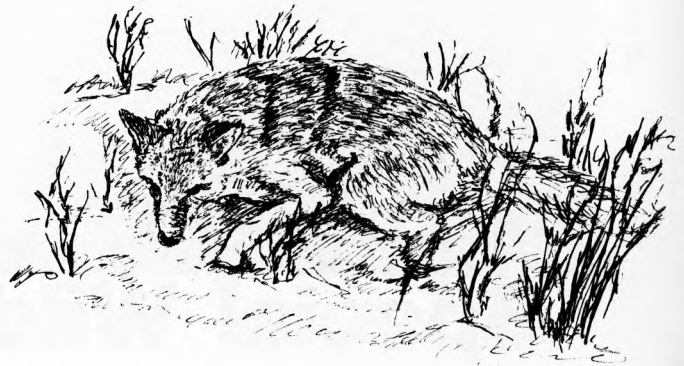
DEP Commissioner Joseph N. Gill emphasized the importance of citizen participation in aiding regulatory agencies to protect wetlands. "People who see destruction of wetland areas should contact their local agency or DEP," he said.

The educational program for National Wildlife Week in Connecticut will be carried out by the Connecticut Affiliate of the National Wildlife Federation, with assistance from DEP. Throughout the state DEP Conservation Officers will distribute NWF Leader's and Teacher's Kits to schools and libraries, and will stop to speak about wildlife conservation. The NWF kits contain posters, stick-ons and educational material about wetlands and wildlife.

In addition, two half-hour television shows are being produced by the Connecticut Wildlife Federation, to be aired over cable TV in the Meriden area, and Bill Clede will do a special Wildlife Week radio show on "WTIC Outdoors." Other activities will include essay and poster contests in schools and slide and lecture presentations in libraries.

Gene Marra, Executive Director of the Connecticut Wildlife Federation, encourages all people in Connecticut to find out about and participate in the activities in their area. Call the Connecticut Wildlife Federation or your local school or library for information. Teacher's and Leader's Kits are also available from the Connecticut Wildlife Federation.

Marra commented that "the observation is for one week, but we hope the materials we distribute will be used throughout the year."



## March 14 - 20





## Midwinter inventory of waterfowl

Each winter states from Maine to Florida conduct an aerial inventory of waterfowl residing in the Atlantic seaboard. Initiated in 1948 and supervised by the U. S. Fish and Wildlife Service, the purpose of the coast-wide survey is to set guidelines based on waterfowl populations for states to follow in setting their waterfowl hunting season. The inventory is also part of a treaty commitment with Canada, Mexico and Great Britain to protect migratory waterfowl.

This year Connecticut's part in the survey consisted of a one-day flyover of Connecticut River and coastal waters on January 15. The observations of this year's inventory, together with those of the last five years are tabulated below:

Year	Sea Ducks (Diving Ducks)	Dabbling Ducks
1972	21,793	6,910)
1973	21,020) 5 Yr. Av.	4,885) 5 Yr. Av.
1974	13,882) 17,131	5,271) 5,688
1975	8,338	3,057)
1976	20,624	8,317
	Geese	Total
1972	1,511)	30,214)
1973	1,659) 5 Yr. Av.	27,564) 5 Yr. Av.
1974	1,530) 2,451	20,683) 25,270
1975	1,510)	12,905)
1976	6,046)	34,987

According to Tim Linkkila, Staff Research Biologist for DEP's Wildlife Unit and coordinator of the Mid-winter Survey in Connecticut, this year's count shows a substantial increase over last year's. "Many factors may effect populations," Linkkila explained, "such as weather conditions on the day of the flight, conditions at the nesting grounds, predators and natural population cycles.

"But you should be careful not to draw too many conclusions from a one-day flyover," he added. "Some days the birds are simply more visible than on others. The number of birds can vary widely between counts, even on successive days."

According to Linkkila, the high and low figures in the 28-year old inventory have been in 1950 and 1975, with a total of 129,637 waterfowl spotted in the 1950 flyover and 12,905 in 1975. Total waterfowl in the 1976 inventory was almost triple the number seen in 1975.

"Each year's survey is a small part of a very large picture we're trying to get," Linkkila said. "We're talking about a wintering bird population from Maine to Florida and a summer population from New Jersey to the Hudson Bay. Based on the overall population patterns in the Atlantic Flyway, the federal government will give us a rough framework of the season days and bag limits we should set."



## Deer season results

Theodore B. Bampton, Deputy Commissioner of the Department of Environmental Protection, has announced the results of Connecticut's first open, regulated deer hunting season.

According to Bampton, the emphasis of the deer hunting project was placed on research and the collection of biological data rather than on sport hunting. "During the first years of any deer project it is desirable that as much information as possible be gathered to determine the condition of the herd," Bampton explained. "As a result, thousands of bits of biological and survey data have been gathered and will be used to further the state's deer management program."

Bampton also stressed that "human safety is a major concern in all DEP programs. During the 1975 deer season, with 11,710 permits and licenses issued and 58,550 days spent afield, there were no deer-hunting related accidents reported."

(continued on page 10)

## 'No Kill' fishing area established

This spring Connecticut anglers will have their first "no kill" fishing area. DEP's Fish and Water Life Unit has set aside a two-mile section of the Willimantic River, extending from the Route 44 bridge in Tolland-Willington to the mouth of Roaring Brook, as a "no kill--fly fishing only" area. This area will be experimental and operated for three years, after which the Fish and Water Life Unit will evaluate the area's success in terms of angler use and satisfaction.

According to Cole Wilde, Director of the Fish and Water Life Unit, "There is an increasing need to establish 'no kill' fishing areas in certain waters of the state. DEP annually stocks from 700,000 to 800,000 trout to provide trout fishing for more than 200,000 licensed anglers and an equal or greater number of unlicensed juveniles in Connecticut. And while there is room for some expansion in trout production at the new Quinnebaug Valley Hatchery, if the present five per cent increase in fishing license sales continues, it will be extremely difficult to meet the demand for trout fishing in future years.

"We are also approaching a point where trout may become too valuable to catch and kill," he added. "Fishing is a valuable form of recreation, and for many fishermen there is no economic need to put the day's catch on the table. We can visualize how much better trout fishing could be in certain streams if each trout could be caught two or three times."

According to Wilde, "For 'no kill' regulations to work requires a high quality stream where fish can survive through the summer and into the fall. Populations of aquatic insects must be large enough to support and grow a sizable number of trout throughout the year. Ideally, within three or four years, the stream should contain a population of naturally spawning trout which are self-perpetrating, though it is not absolutely necessary that a self-perpetrating population of trout be established.

"There is an excellent chance this experimental program will be successful, but only if the angler makes it work," Wilde said. "If the area is only lightly used it will have to be considered a failure. But if stocked trout can be caught two or more times, the added recreation they provide will more than compensate for the cost of the stocking."

Most of the states in the northern trout belt have long had waters set aside as "fish for fun," "trophy fish," "limited kill" or "no kill" areas. The success of these programs has varied from failure, usually due to lack of fishing pressure, to great success.

The Willimantic River was chosen for the "no kill" experiment following the success of the upstream pollution abatement program on the river. The Willimantic is a stream of high water quality containing a large and varied population of aquatic insects and with some natural reproduction of brook and brown trout.





# Connecticut's

## American Shad



by Cole W. Wilde, Director  
DEP Fish and Water Life Unit

In recent weeks, proposals have been put forward to designate the American shad as Connecticut's State Fish. Although it appears that any serious consideration of such proposals will be deferred to a future session of the General Assembly, the basic suggestion is valid and some facts about Connecticut's shad fishery may be of interest.

The Connecticut River supports one of the finest sport fisheries for American shad found in North America. Most of Connecticut's fishing for this fine game fish takes place between the Bissell Bridge in Wilton and the Enfield Dam in Suffield-Enfield. The best and the most well known area is at the Enfield Dam where in a peak year anglers catch as many as 30,000 to 35,000 three to seven pound shad. Another prime fishing area is a half-mile stretch in Windsor Locks from the old Iron Bridge to the Route I-91 bridge. There is also good shad fishing in the area from the Bissell Bridge upstream to about one-half mile above the mouth of the Farmington River. This area is less popular than the two previously mentioned upstream areas.

Shad are also taken in the lower Farmington River from Pequonnock downstream to its junction with the Connecticut River. This year for the first time in more than 100 years shad will be able to move up the Farmington River as far as Collinsville. This was made possible by the construction of a fish passage facility around the Rainbow Dam in Pequonnock. It seems likely that anglers will be locating new areas on the Farmington

River between Tariffville and Collinsville where shad will provide exciting fishing.

The American shad is not only an important fish for the sports fishermen, but is also a valuable fish for the commercial fishermen. The commercial catch of shad from the Connecticut River varies from a low of about 60,000 fish to a high of more than 200,000 fish.

The angler's catch, as well as that of the commercial fisherman, is dependent on the size of the run and to a great extent on water temperatures and levels during the peak of the run. Water temperatures and levels frequently exert more influence on the catch than does the size of the run.

Shad enter the river in late March or early April. The first significant commercial catches usually are made between the 10th and 15th of April. Shad are usually present at the Enfield Dam by the third Saturday in April (opening day) but generally anglers do not start to catch fish until several days later.

The shad population is presently going through a period of growth. Thus we can look forward to a large shad run this spring. Last year more than 115,000 shad passed over the Holyoke Dam in Massachusetts and anglers at the Enfield Dam had an excellent season. It is more difficult to predict what the weather will be like during late April and May, but if normally warm weather occurs during this period and if water levels in the Connecticut River are average or slightly below average, anglers can look forward to a banner spring.

When the shad bush is in bloom the angler and the gourmet can again look forward to broiled shad and shad roe on the table.

### DEP Citizens' Bulletin

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# Wood Duck nesting box program

Thousands of small wooden boxes throughout the Northeast are saving a duck population that was nearly wiped out in the 1930's.

According to Oliver E. Beckley, DEP's Supervisor of Wildlife Management, "Until the mid to late 1930's the wood duck population in Connecticut was in pretty good shape. But a hurricane in 1938 destroyed much of their habitat, knocking down the old trees that provided the ducks with nesting cavities. The population took a drastic decline."

After the hurricane, northeastern states began setting out wood duck nesting boxes to replace the nesting cavities that were lost. Connecticut's statewide nesting box program began in 1953 and has expanded so that about 1,000 nesting boxes are being maintained by the state each year.

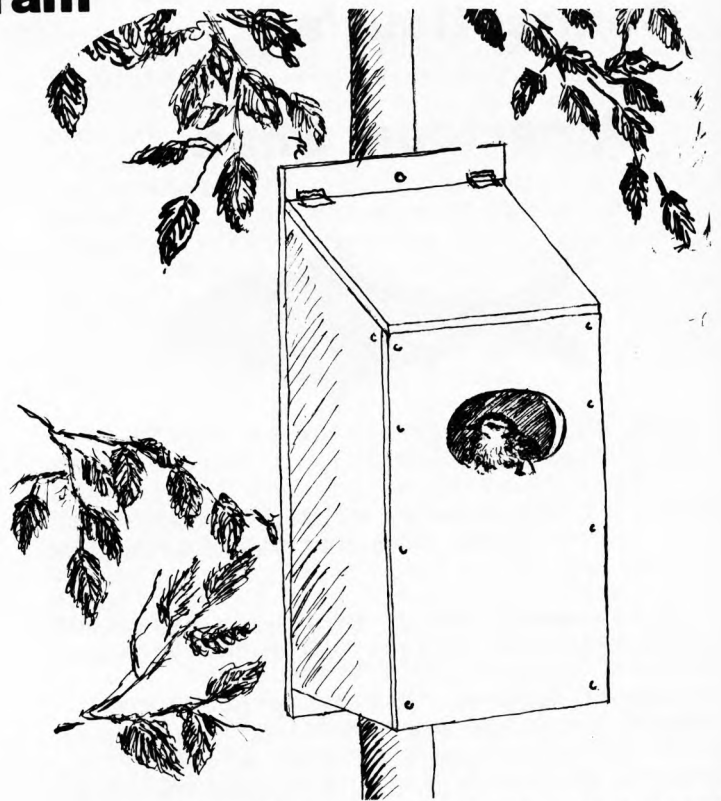
Every winter Conservation Officers and Regional Biologists check the boxes for damage and use, and refill the bottoms with pine shavings. Old or damaged boxes are replaced and boxes that receive insufficient use are moved to more useful areas. Box checks are made in the winter because the boxes are more quickly accessible over ice than by boat.

According to Beckley, more than 37,000 ducklings were hatched in the department-maintained boxes during the first ten years of the program. Because of the program, Beckley said, "our Connecticut wood duck population has been reinstated."

In addition to the department-built nesting boxes, other boxes have been built by sportsmen's clubs and individuals. "Although data from these sources are incomplete, reports received from volunteers indicate relatively high usage of these boxes by wood ducks," Beckley said.

\* \* \*

Though it is too late to provide wood duck nesting for this breeding season, the Wildlife Unit encourages anyone who wishes to set up a wood duck nesting box for next year to do so. Plans for building the boxes are available from the Information Unit of DEP. Once you've built the box, here are some words of advice before you set it up:



1. Set the pole firmly in the ground in shallow water or around the marshy edge of a lake or pond. The pond should be in a secluded spot away from houses or development.
2. The best time to place the box is in December or January. It is easiest to set up the box when there is heavy ice you can stand on. In addition, breeding season for wood ducks is beginning now, and to invade their habitat would disturb the ducks.
3. Leave the wood natural. Wood ducks find creosote, preservatives or paint objectionable and will not nest in a box that has been painted. Leaving the wood unfinished gives it a natural appearance as it ages.

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*The wild goose has about twelve thousand muscles--ten thousand of which control the action of its feathers.*

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*The opossum is no larger than a honeybee at birth.*



# Create a Backyard Habitat



by Gene F. Marra, Executive Director  
Connecticut Wildlife Federation

Every backyard, regardless of size, is a potential oasis for all forms of wildlife. With a little planning, a modest investment, and some rewarding outdoor activity, yours can become a source of limitless pleasure, not to mention its value in providing habitat to many forms of wildlife.

We have all been alerted to the deterioration of our environment, and we have heard the call to great crusades, both public and private. Inviting wildlife to your backyard answers the question in many minds: what can one person do? In addition, it is probably the best way to establish in the minds of children a simple tenet of the complex science of ecology: life operates in one large system and everything in that system is interconnected; any change in one part affects the rest of the system.

## BASIC WILDLIFE NEEDS

Before beginning, the basic elements for the survival of all wildlife, and all life as well, must be understood. Food, water, cover as protection from natural enemies and the elements, and areas where they can reproduce in safety are necessary. Combinations of these four elements are unique for each species, but a habitat that offers enough combinations to attract the greatest number and variety of wildlife your area can support can be planned. Your aim should be to plan the vegetation, supply water and natural, as well as artificial food, so that you will provide the maximum number of homes for wild creatures.

## FOOD

Food for wildlife is easy to furnish. You can supplement natural growth with a variety of products, especially for seed-eating birds. In fact, many people who don't have enough land to provide water, cover and reproductive areas can enjoy some wildlife through feeding alone.

The ideal wildlife management plan, however, supplies as much food as possible



through vegetation. A variety of vegetation from berries to nuts is necessary to meet the year-round needs of many species.

But don't make the mistake of considering food provision the beginning and end of wildlife management. Food must be accompanied by the other three habitat elements to enable wildlife to live in your yard.



## WATER

You can fulfill wildlife's critical water needs--drinking and bathing--with a simple bird bath or ground watering device. Most desirable, however, is a small pool with an area large enough to support plants that grow in water, as well as around the edge. It will become the scene for a broad range of wildlife activity.

During the night, raccoons might make feeding forays while bats sweep the air above the pool for insects. In very early morning and late evening, rabbits will feed on the succulent growths around the edge. Activity will drop during the day, but birds will still use the area for watering and bathing, turtles and frogs for sunning.

You can encourage winter activity by keeping a section of the pool ice-free; use a livestock trough warmer.

In addition to its wildlife value, the water area will provide a key focal point in the landscape design. Locate it to provide maximum visibility from the terrace or windows of the house.

## COVER

Cover is any place that protects animals from predators and the weather. Different species have different cover requirements: rock piles or stone walls for chipmunks and lizards, brush piles or dense shrubs for cottontails and towhees, evergreens for chickadees and pine squirrels, and water for frogs and turtles.

Cover also serves as a home base--the farther an animal must venture from cover, the more vulnerable it is to predators. So try to provide cover close to food and water. Many cover plants can also be food plants.

You can also arrange cover to please the eye. Define your yard's open spaces with trees, shrubs and stone walls, grading their heights so tall trees and shrubs won't block open areas and low growth from view.

## REPRODUCTIVE AREAS

All wildlife needs a specific kind of cover where it can produce young, and, in most cases, raise them. Each reproductive area must offer protection from the elements and be relatively safe--either inaccessible to predators or well hidden.

The diversity of cover you need for a complete habitat requires mature trees. These provide den sites for squirrels and nesting places for both high and low-nesting birds.

Until your habitat is complete, you can compensate for a lack of big trees with nest boxes for squirrels and some birds. English sparrows, house wrens and tree swallows will probably use them.

Unmowed lawn edges and low shrubs are perfect sites for song sparrows and cottontails; the moistness will attract katydids, crickets and grasshoppers.

Frogs, toads, salamanders and fish may deposit their egg masses in the pool and its vegetation; and water insects such as dragonflies, waterstriders and back-swimmers will breed there.

## HOW TO BEGIN

Before you do anything, put your plan on paper, because the planning you do at the outset will determine the whole course of your backyard wildlife program. Careful selection of plants is most important in providing maximum overlap of flowering and fruiting times. A blending of large and small trees, shrubs, and grasses planted around open areas create the "edge effect" which attracts the largest

number and variety of wildlife to the smallest piece of land.

If you have a large yard you're lucky. You can use the above basic principles to create a wildlife habitat that is complete, diverse and stable. It takes an acre or more to attract animals near the top of the food chain--those that live on other animal life. These animals include hawks, owls and foxes which eat small animals, as well as raccoons and skunks, which eat both plants and animals.

If your yard is smaller it may be difficult to provide food, water, cover and breeding area for many species. But it will still be possible to provide one or more of the basic wildlife needs to attract some species to your home.

## STAGE 1

If you start with only a sodded yard, plant a variety of large and small shrubs and trees to create some sparse, but usable habitat. At the start you will need to augment food and water resources with artificial feeders and birdbaths. Bird nesting will be limited, but you can help with nesting boxes.

Leave enough open space so you can observe wildlife without disturbing it. Consider the eventual heights of your





plantings so the taller ones will be in the rear. Vary the heights of masses for a visually pleasing growth.

## STAGE II

It takes a yard 5 to 10 years to progress from the initial plantings of Stage I to the fairly mature shrub condition of Stage II. The trees will now be about 25 feet tall. If your yard is in this stage now, but is a dense wooded area of young trees and shrubs, make a plan to thin vegetation to achieve a balanced habitat. In Stage II there will be enough flowers and fruits to attract a variety of birds and insects, which will in turn attract reptiles and amphibians. A small pond should replace the birdbath. Cardinals, song sparrows and catbirds will nest in the denser shrubbery and robins will raise broods in trees. Rabbits and chipmunks will also be in evidence.

## STAGE III

This means a yard with varied mature trees, with hardwoods in full fruit production, plus mature shrubs and sufficient open areas. This will ordinarily take 30 - 40 years from initial planting. If, however, your yard has little shrubbery, but already has a reasonable number of these trees producing fruits and nuts, you can plant shrubbery and low vegeta-



tion and achieve, in 5 to 10 years, Stage III which attracts the maximum number of wildlife species.

## INCLUDE YOUR NEIGHBORS

As your habitat develops, it will become an increasingly exciting and intimate part of your family's life. Aside from the benefits to wildlife, studies show that property values rise from three to ten percent with the addition of vegetation and good tree cover.

By cooperating with your neighbors you can create "wildlife neighborhoods" that will not only aid wildlife and make your own small island of good habitat more successful, but also make life more fun for you and your family. And as the trend toward urbanization continues, green space for people and plantings for wildlife will become increasingly more important.

\* \* \* \*

If you have no yard at all, you can still provide food and water in window box planters. These can bring a little piece of nature into the lives of even apartment dwellers - provided, of course, that some bird life is already present, your apartment is not too high above the ground, and you can open your windows. Your window box can support the same basic processes as any natural area - soil, water, sunlight and plants combining to produce life in a microcosm. With a little luck, birds will make your window box a part of their lives.



## WHERE TO GET HELP

Advice for specific problems you may encounter is available at no cost from your county agricultural agent or the state university landscape specialist. Your local nurseryman is also a good source of assistance.

Your Soil Conservation District Office can assist you on water and soil problems, and DEP staff biologists will help. Zoos, natural history museums and nature centers also contain a wealth of information on specific needs of wildlife.

More details on the plan outlined above are available from the Connecticut Wildlife Federation Office in Middletown.

## 'Buffer Bunches' attract wildlife



You can start a wildlife habitat in your backyard by planting a "wildlife buffer bunch", obtainable from the Pachaug State Nursery for planting this spring. The Forestry Unit of the Department of Environmental Protection offers these tree and shrub seedlings to Connecticut homeowners who would like to attract and feed wildlife.

Each bunch has 20 conifer seedlings, usually white pine and white spruce, and 30 shrub seedlings of several species all grown at the state nursery in Voluntown. The evergreens provide cover for small animals and the shrubs provide seeds or berries for food.

The price for a bunch of 50 seedlings is \$7.00, which includes the cost of direct mailing. The plants are eight to sixteen inches high, and each is labelled and comes with planting instructions.

The DEP has two restrictions on the seedlings: they may not be used for ornamental plantings and they may not be resold. Ornamental plantings would include using the seedlings individually instead of in groups or using them immediately around the house.

According to State Forester Robert L. Garrepy, "These actions would defeat the purpose of the program. We are providing this planting stock for those landowners who wish to establish cover and a source of food for birds and animals. We include songbirds, rabbits, squirrels and other small mammals as urban wildlife, in addition to those species normally found in rural areas."

Information and order forms are available from the five DEP Regional headquarters or from the State Forester's Office, Room 220, State Office Building, Hartford, 06115.

Order your buffer bunch, but hurry; the deadline is April 1.

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### DEER SEASON RESULTS (cont'd. from p.3)

According to the report, nearly 2,000 landowners opened 255,000 acres of private land to deer hunting. Combined with 128,695 acres of state land, this acreage provided a total of 383,856 acres open to deer hunters for the 1975 season, or about 10% of Connecticut's land area.

The summary showed that a total of 536 deer were taken during the 1975 regulated season, with 285 of these being bucks and 251 does. 280 deer were harvested in state forest lands, with the highest yield provided by Pachaug and Housatonic State Forests, closely followed by Tunxis, Natchaug, Cockaponset, Nipmuck and Meshomasic Forests, in that order. The towns of East Haddam and Sherman produced the most deer on private land, followed by Granby and Cornwall.

Results of a survey of hunters at deer check stations showed that the majority of hunters afield were experienced deer hunters who had hunted previously in Connecticut and other states. Almost half the hunters took vacation time to pursue the whitetail and most preferred to go with a companion. On the average, each hunter saw nine deer during the season but observed only three other hunters in any one day. The average



hunter was out five days with a combined total of 58,550 days spent afield.

The total amount of boneless venison derived from all the deer taken is valued at \$50,300.00. Permit revenues total \$93,000.00 and, based on previous studies, it is estimated that deer hunters spent an additional \$1,358,300.00 in the pursuit of their sport. Seventy-five percent of the state's cost of implementing this project is reimbursed by the federal government from monies paid by sportsmen on the purchase of hunting equipment.

According to Deputy Commissioner Bampton, "it is essential that any agency administering a deer program have the flexibility to respond quickly to changes in herd numbers, conditions or climate catastrophe. States without this flexibility experience serious deer management problems. Connecticut is fortunate to have this flexibility in the form of a regulated open hunting season."



# Whose footprint is that?

## Build an animal tracking station



by John J. Dommers, Director  
Norma Terris Humane Education Center  
Humane Society of the United States

An animal "tracking" station is nothing like a N.A.S.A. space "tracking" station. There are no sophisticated electronic devices or TV monitors. Rather, it is an easy-to-make animal track study area for backyards, school yards, or nature centers.

Here are the steps in making a "tracking" station for animals:

1. Select a grassy or clear area near a woodland, marsh or field habitat.
2. Mark off a circle six feet in diameter.
3. Remove a circle of grass two feet in from the outside of the circle, leaving a one foot diameter grass area in the center.
4. Remove all stones, pebbles, twigs, leaves and other matter from circle of bare soil. Sift and rake the soil so that footprint impressions will be visible.
5. "Bait" the center circle of grass with such foods as lettuce, apples, carrots, peanuts, dog food, or cat food, depending on the kinds of animals you wish to attract.  
Note: The best time to bait the station is in the late afternoon when people activity in the area slows down.

6. It may be necessary to sprinkle water on the soil from a hose or watering can in order to get a good "tracking" surface. Be careful not to make it muddy.
7. Check the "tracking" station each morning for missing food and footprints. Match the footprints with those on a track identification guide.



It may take a day or two for animals to find your "tracking" station, but once they do, you'll find it fun to discover the "night stalkers" in your neighborhood. Don't be surprised to find tracks from local dogs and cats.

If you have trouble matching tracks with those on a guide, look for other animal signs such as droppings or teeth marks on the apples or carrots.

A "tracking" station is a great way to find out the kinds of animals that share your immediate environment without trapping or disturbing them.

For further information on building a tracking station or for an "Animal Tracks" chart such as the one shown in the photograph, contact John Dommers at the HSUS Norma Terris Humane Education Center, East Haddam, Connecticut.



photos by John Dommers



# Conservation Commission Corner

## HYDROLOGY SEMINAR APRIL 1

An evening seminar on hydrology will be sponsored by the Granby Conservation Commission at 8:00 p.m. on Thursday, April 1, at the Granby Town Hall.

The main feature of the seminar will be a discussion and evaluation of the hydrology section of a "Land Use Decision Making Kit" prepared by E & P Education Services, Inc. under a federal (HEW) grant. The kit, designed to help communities in land use planning, has been sent to every town in Connecticut. Dr. Francis P. Lynch, Coordinator of the Social Studies Department, Granby Middle High Schools, will discuss the entire kit with special emphasis on the hydrology section.

Roger Seamans, Executive Director of the Farmington River Watershed Association, will speak on the subject, "Watershed Management, Large and Small."

Robert Melvin, Hydrologist for the U.S. Geological Service, will discuss, "Aquifers and Their Importance."

Members of conservation commissions, planning and zoning commissions and inland wetlands agencies as well as mayors, selectmen and other local officials concerned with land use decisions, are invited to attend and participate in this seminar.

## REGIONAL ENVIRONMENTAL EDUCATION SEMINAR MAY 19

The Farmington River Watershed Association and the Department of Environmental Protection will co-sponsor a regional seminar on environmental education at the Parish House, Avon Congregational Church, at 2:00 p.m., Wednesday, May 19. The program entitled, "Education Plus Community Equals Environmental Knowledge," is designed to encourage involvement by conservation commissions and other community organizations in the promotion of environmental education and to encourage teachers to incorporate environmental studies in their programs.

Mary Dishaw, Chairwoman of the Granby Conservation Commission, is coordinating arrangements for the seminar. Roger Seamans, Executive Director, Farmington River Watershed Association, will serve as moderator of a panel of speakers including Dr. Harry Haakonsen, Coordinator of Environmental Studies at Southern Connecticut State College; Richard Kisiel, Principal of Granby Memorial High School; Dr. Francis P. Lynch, Coordinator, Social Studies Department, Granby Middle High Schools; and Dr. Sigmund Abeles, Science Consultant, State Department of Education. Representatives of many of the Nature and Environmental Centers in the Farmington River Watershed area will also be featured.

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## BRENNEMAN TO ADDRESS CONSERVATION COMMISSION WORKSHOP

Attorney Russell Brenneman will be the featured speaker at a workshop for conservation commissions on Monday, March 29, at the Holiday Inn in Meriden. The subject of Mr. Brenneman's address will be "Preserving Open Space with Easements."

Other features of the afternoon and evening program include a brief legislative review by DEP Legislative Liaison Mary Ann Dickinson, and a new video tape of the workshop series "Use of Natural Resource Data by Municipal Land Use Decision Makers" conducted by the Department of Environmental Protection and the Cooperative Extension Service.

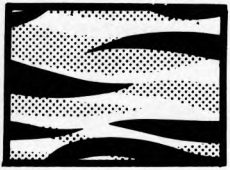
Among the many resource specialists participating in the individual workshops

will be Christopher Percy, Connecticut River Watershed Council; Roger Seamans, Farmington River Watershed Association; Peter Hearn, Housatonic Valley Association; and Frank Indorf, District Conservationist, New Haven County Soil and Water Conservation District.

Representatives of DEP's Natural Resources Center and Water Resources, Open Space Acquisition and Information and Education Units, will be on hand to discuss department programs.

Detailed information on the program and on reservations may be obtained by calling Mrs. Gay Ewing at 434-8495 or DEP, Information and Education at 566-3489.





## IWR's UConn Conference

The Institute of Water Resources at the University of Connecticut, in conjunction with the Office of Water Resource and Technology, the Northeast Water Institute Directors and the Division of Extended and Continuing Education of the University of Connecticut, hosted a two day conference on the topic of "River Management Research Needs" on March 11 and 12. The purpose of the conference was to identify various approaches to use in modeling river systems and to determine the most effective research management systems needed to carry out modeling objectives.

The conference was attended by representatives from the 15 states comprising the federally-designated Northeast Region, who were selected by the directors of the water institutes of each state. Primary emphasis was placed on the need for and usefulness of regional collaboration in studying river systems as opposed to more limited statewide or river-area initiatives. The possibility of transferring research results and programs from one river system to another was also discussed.

The first day of the University of Connecticut workshop was aimed at past experience, with several experts in the field of river modeling presenting summaries of studies in which various approaches have been used, including the Willamette River in Oregon, the Hudson River in New York and the Delaware River in New Jersey; followed by discussion of the corresponding organizational arrangements that were made. The second day focused on recommendations for the future, with discussions centering on the distinctions between research and management, the effectiveness of regional and on the locational needs for research institutions.

In co-sponsoring this workshop the Institute of Water Resources provided a continuation of the valuable program on river modeling begun at the University of Massachusetts in April, 1975. The UConn workshop served to illustrate a diversity of solutions to similar management problems and to provide a needed exchange of ideas.

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*Whales, like all other mammals, can drown if they get water in their lungs.*

## Trailside Botanizing

by G. Winston Carter

### SKUNK CABBAGE (*Symplocarpus foetidus*)

The first tips of skunk cabbage begin to appear during late February and early March. Look for them in swampy areas, around water holes and along stream banks. This is probably the earliest wild flower to blossom in this area, although the pussy willow may be in bloom at about the same time.

At first glance the skunk cabbage seems to have no relation to plant life, but resembling brownish-green, red or yellow horns sticking up here and there out of the frozen ground. The skunk cabbage, like many other spring plants and growing buds and leaves, actually runs a temperature that may be many degrees higher than its surroundings. This heat arises from energy generated in the sap, and enables the plant to push its way up through frozen muck and snow to blossom long before other flowers. In fact, it can generate enough warmth to melt a hole several inches in diameter.

The leaves of the skunk cabbage appear after the flowers of the year have been pollinated. The flowers bear both stamens and pistils, which are crowded onto a sphere-like structure enclosed in a broad slipper-shaped hood that is green and red or brown. Pollination is probably done by carrion flies. The cabbage-like leaves release a skunkish odor when crushed, explaining the plant's species name "foetidus," which in Latin means "evil-smelling."

Skunk cabbage is edible as a cooked vegetable but must be specially prepared to get rid of the odor. Indians used the bruised leaves for headaches by inhaling the fumes, while others have used it for rheumatism and respiratory ailments.



*G.W. Carter*



## **legislative summary**

### AIR AND WATER QUALITY

SB 46 AN ACT CONCERNING PERMITS FOR NEW DISCHARGES OF WATER POLLUTION (Environment) JF

SB 49 AN ACT CONCERNING VIOLATIONS OF REGULATIONS AND ORDERS CONCERNING BURNING IN THE OPEN AIR (Environment) JF

SB 50 AN ACT CONCERNING THE CONTROL OF MOTOR VEHICLE EMISSIONS (Environment)

SB 57 AN ACT CONCERNING THE AUTHORITY OF THE STATE HEALTH DEPARTMENT WITH RESPECT TO THE TAKING OF SHELLFISH IN CONTAMINATED AREAS (Public Health & Safety) JF

SB 134 AN ACT CONCERNING THE INSTALLATION OF AIR POLLUTION CONTROL DEVICES ON HEAVY-DUTY GASOLINE-POWERED MOTOR VEHICLES (Environment)

HB 5100 AN ACT CONCERNING LIABILITY FOR POLLUTION AND CONTAMINATION (Environment) JF

HB 5685 AN ACT CONCERNING A BAN ON THE USE OF POLYCHLORINATED BIPHENYLS IN THE STATE (Environment)

### Solid Waste & Resource Recovery

SB 48 AN ACT CONCERNING THE FILING OF SOLID WASTE PERMITS ON LAND RECORDS (Environment) JF

SB 342 AN ACT CONCERNING REUSABLE BEVERAGE CONTAINERS AND A BAN ON PULLTOP CANS (Environment) (NOT given a JF)

SB 408 AN ACT CONCERNING SOLID WASTE MANAGEMENT (Environment)

SB 409 AN ACT CONCERNING THE ADMINISTRATION AND ENFORCEMENT OF SOLID WASTE REQUIREMENTS (Environment)

SB 410 AN ACT CONCERNING THE CONN. RESOURCES RECOVERY ACT (Environment)

HB 5318 AN ACT CONCERNING MUNICIPAL CHARGES FOR DISPOSAL OF SOLID WASTES (State & Urban Development) JF

HB 5464 AN ACT CONCERNING THE CONN. RESOURCE RECOVERY AUTHORITY (Environment)

Since it was impossible to try to list in such a short space all of the environmental legislation filed in the 1976 Session, we tried to compile an up-to-date listing of the more major bills. "SB" indicates that the bill is a Senate Bill; "HB" indicates House Bill; ( ) indicates which legislative committee is considering the bill; "JF" means that the committee has given the bill a joint favorable report, and consequently the bill is ready for floor action; "JF to \_\_\_\_\_" means that the bill has been given a favorable report, but has to be approved by the second committee.

Copies of these bills are available from the Bill Room at the Capitol, or from your legislator. For additional information on the status of bills, call the Legislative Information Service at 566-7050.

HB 5647 AN ACT CONCERNING NOTICE OF PROPOSED SOLID WASTE DISPOSAL AREAS (State & Urban Development)

HB 5680 AN ACT CONCERNING THE ESTABLISHMENT OF A SOLID WASTE STANDARDS OPERATION COMMISSION (Environment)

HB 5688 AN ACT CONCERNING THE CONSTRUCTION OF A SOLID WASTE FACILITY IN BERLIN (Environment)

### INLAND WETLANDS AND WATER RESOURCES

HB 5185 AN APPROPRIATION FOR SOIL AND WATER CONSERVATION DISTRICTS (Environment) JF to Appropriations

HB 5243 AN ACT CONCERNING THE AWARDED OF DAMAGES IN ACTIONS BROUGHT UNDER THE INLAND WETLANDS ACT (Environment)

HB 5681 AN ACT CONCERNING TECHNICAL AMENDMENTS TO THE INLAND WETLANDS ACT (Environment)

### FISH AND WILDLIFE

SB 42 AN ACT DESIGNATING THE AMERICAN SHAD AS THE STATE FISH (Environment)

SB 43 AN ACT CONCERNING STRIPED BASS (Environment) JF

SB 82 AN ACT CONCERNING COMMERCIAL FISHING IN INLAND AND MARINE WATERS (Environment)

HB 5103 AN ACT CONCERNING PERMITS TO COLLECT FISH, CRUSTACEANS AND WILDLIFE FOR SCIENTIFIC AND EDUCATIONAL PURPOSES (Environment) JF

HB 5184 AN ACT CONCERNING COMMERCIAL HATCHERIES (Environment) JF

HB 5186 AN ACT CONCERNING THE CARRYING OF LOADED MUZZLELOADERS (Environment) JF to Judiciary

HB 5189 AN ACT CONCERNING THE OPEN SEASON FOR THE HUNTING OF GAME (Environment) JF

HB 5242 AN ACT CONCERNING THE DIVIDING LINE BETWEEN THE MARINE & INLAND WATERS ON THE HOUSATONIC RIVER (Environment) JF



HB 5392 AN ACT CONCERNING HUNTING, TRAPPING AND SPORTS FISHING FEES (Environment)

HB 5591 AN ACT CONCERNING THE REQUIREMENT OF A SEPARATE LICENSE TO TRAP (Environment)

HB 5601 AN ACT CONCERNING THE SUSPENSION OF A MOTOR VEHICLE OPERATOR'S LICENSE FOR JACKLIGHTING (Transportation)

HB 5683 AN ACT CONCERNING HUNTING WITH BIRDS OF PREY (Environment)

HB 5689 AN ACT CONCERNING AN EXEMPTION FROM LICENSES REQUIRED FOR HUNTING, TRAPPING AND FISHING (Environment)

#### PARKS AND FORESTS

HB 5101 AN ACT CONCERNING THE DEFINITION OF FOREST LAND (Environment)

HB 5592 AN ACT CONCERNING ACCESS FROM PRIVATE LANDS TO STATE LANDS BY SNOWMOBILES (Environment)

HB 5687 AN ACT CONCERNING HOURS OF OPERATION OF SNOWMOBILES ON STATE-OWNED LAND (Environment)

#### ENVIRONMENT AND ECONOMIC IMPACT REVIEW

SB 27 AN ACT CONCERNING THE ESTABLISHMENT OF A COMMISSION ON ENVIRONMENTAL PROTECTION AND ECONOMIC DEVELOPMENT (State & Urban Development) JF to Appropriations

SB 300 AN ACT CONCERNING THE DISCLOSURE OF THE IMPACT OF LEGISLATION AND PROPOSED PROJECTS OF STATE AGENCIES ON THE ECONOMY OF CONNECTICUT (Government Administration & Policy)

SB 442 AN ACT CONCERNING THE CONNECTICUT ENVIRONMENTAL POLICY ACT (Environment)

#### LAND ACQUISITION AND OPEN SPACE

SB 24 AN ACT CONCERNING A RECAPTURE TAX ON THE SALE OF LAND CLASSIFIED AS OPEN SPACE BY A PUBLIC SERVICE COMPANY (Finance)

SB 107 AN ACT CONCERNING OPEN SPACE DESIGNATION OF WATER COMPANY LANDS (Environment)

SB 148 AN ACT CONCERNING APPRAISAL OF FARM LAND FOR PURPOSES OF THE SUCCESSION TAX (Finance)

SB 233 AN ACT CONCERNING TAXATION OF FARM AND FOREST LANDS (Finance)

SB 406 AN ACT CONCERNING THE PRESERVATION OF CONNECTICUT AGRICULTURAL LANDS (Environment)

SB 440 AN ACT CONCERNING THE PRESERVATION OF CONNECTICUT AGRICULTURAL AND WATER COMPANY LANDS (Environment)

SB 469 AN ACT CONCERNING THE PRESERVATION OF CONNECTICUT AGRICULTURAL AND SHORELINE AND WATER-ORIENTED LANDS (Environment)

SB 477 AN ACT CONCERNING WEST ROCK RIDGE STATE PARK (Environment)

HB 5064 AN ACT CONCERNING THE DESIGNATION OF FORESTLAND FOR OPEN PURPOSES (Finance)

HB 5393 AN ACT CONCERNING THE TAXATION OF LAND OWNED BY A MUNICIPALITY FOR WATER SUPPLY PURPOSES (Environment)

HB 5481 AN ACT CONCERNING PROPERTY TAXATION OF PUBLIC SERVICE COMPANIES (Finance)

HB 5588 AN ACT CONCERNING THE USE OF LAND AT BLUFF POINT COASTAL RESERVE (Environment)

HB 5535 AN ACT CONCERNING MUNICIPAL PERMISSION REQUIRED FOR TAX-EXEMPT INSTITUTIONS TO ACQUIRE ADDITIONAL LAND (Finance)

HB 5757 AN ACT CONCERNING THE CONNECTICUT RIVER GATEWAY COMMISSION (Environment)

#### LAND USE

SB 161 AN ACT PROVIDING A PROCESS FOR ADOPTION OF A STATE PLAN OF CONSERVATION AND DEVELOPMENT (State & Urban Development)

SB 254 AN ACT CONCERNING REGIONAL REFERENDA FOR OIL REFINERIES (Elections)

SB 343 AN ACT CONCERNING COASTAL ZONE MANAGEMENT (Environment)

#### ENERGY

SB 404 AN ACT CONCERNING PLANS OF EVACUATION FOR NUCLEAR ACCIDENTS (Public Health & Safety)

SB 421 AN ACT PROVIDING A TAX CREDIT FOR RESEARCH AND PRODUCTION OF NEW ENERGY SYSTEMS (Regulated Activities)

SB 422 AN ACT PROVIDING PROPERTY TAX EXEMPTION FOR SOLAR ENERGY SYSTEMS (Regulated Activities)

#### TRANSPORTATION

SB 420 AN ACT CONCERNING DEVELOPMENTS GENERATING LARGE VOLUMES OF TRAFFIC ON STATE HIGHWAYS (Transportation)

SB 450 AN ACT CONCERNING AUTHORIZATION OF BONDS OF THE STATE FOR MASS TRANSPORTATION (Transportation)

SB 458 AN ACT CONCERNING RESTRICTION OF OUTDOOR ADVERTISING ON INTERSTATE, FEDERAL-AID AND OTHER LIMITED ACCESS HIGHWAYS (Transportation)

#### OTHER BILLS OF ENVIRONMENTAL INTEREST

SB 45 AN ACT CONCERNING INSTRUCTION IN ENVIRONMENTAL STUDIES (Environment) JF to Education

SB 156 AN ACT CONCERNING ELIMINATION OF A SEPARATE FUND FOR BOATING FEES (Appropriations)

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*A baby fish is born naked of scales,  
later sprouting them from under its skin.*



The inland wetlands and water courses of the State of Connecticut are an indispensable and irreplaceable but fragile natural resource with which the citizens of the state have been endowed. The wetlands and water courses are an inter-related web of nature essential to an adequate supply of surface and underground water; to hydrological stability and control of flooding and erosion; to the recharging and purification of ground

water; and to the existence of many forms of animal, aquatic and plant life.

The preservation and protection of the wetlands and water courses from random, unnecessary, undesirable and unregulated uses, disturbance or destruction is in the public interest and is essential to the health, welfare and safety of the citizens of the state.

- Connecticut Inland Wetlands and Watercourses Act

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## DEP citizens' bulletin

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